



Monterey Bay National Marine Sanctuary

Sanctuary Ecologically Significant Areas (SESAs)

Sanctuary Advisory Council Meeting
April 18, 2013

Outline



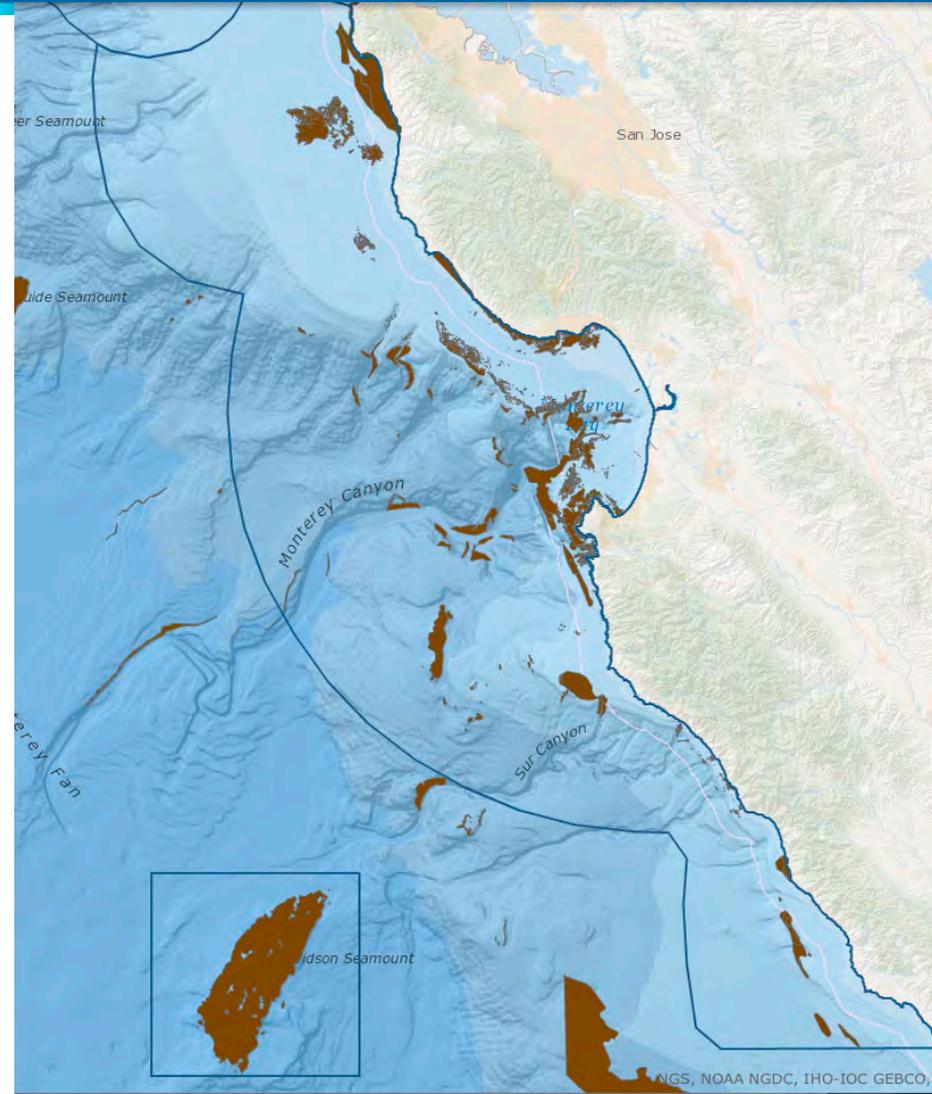
- I. What are SESAs?
- II. Why
- III. Where
- IV. How
- V. Next steps
- VI. EFH timeline & process
- VII. SESA GIS online map

SAC Input and Discussion
April 18, 2013

I. What are Sanctuary Ecologically Significant Areas (SESAs)?

Definition

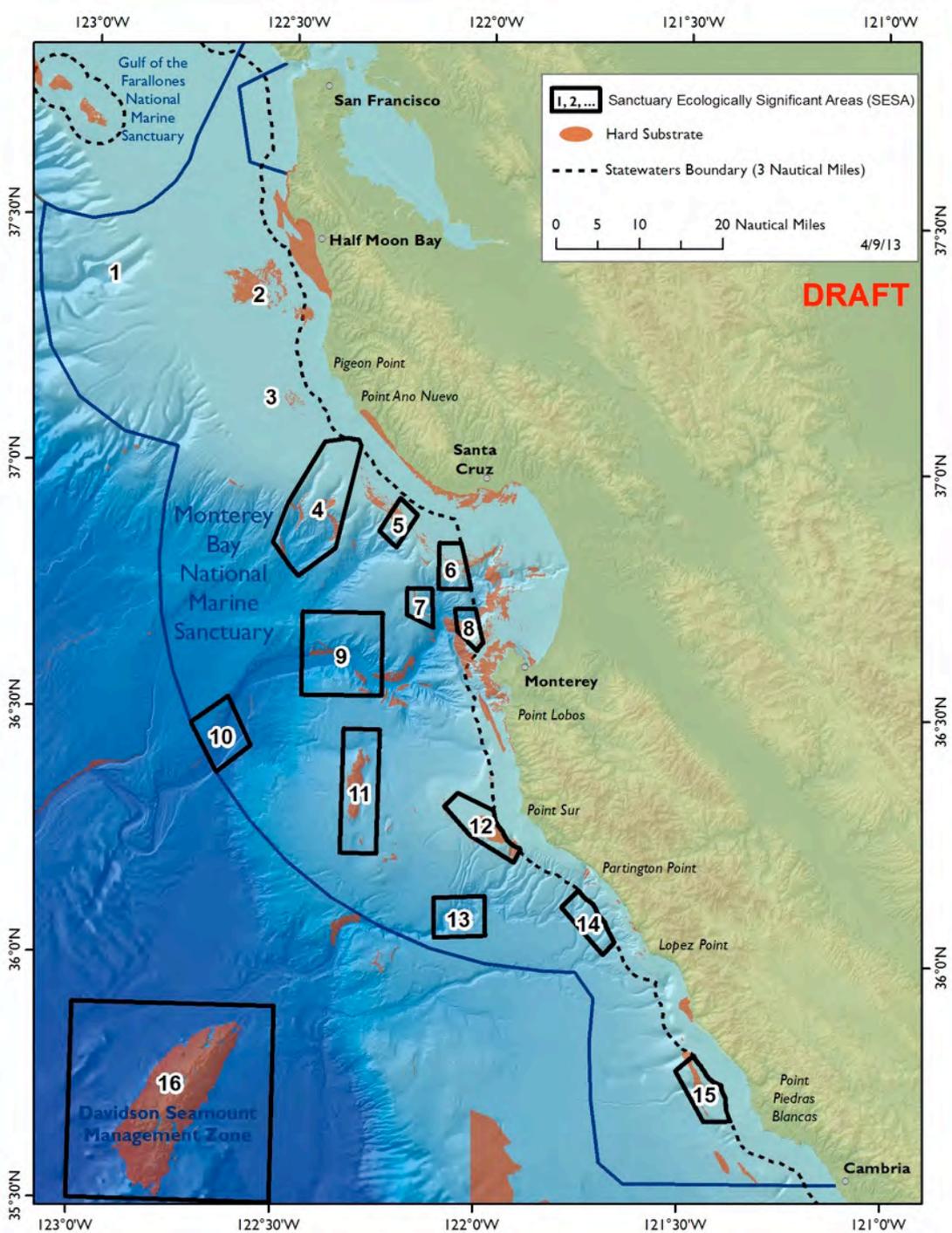
- **SESAs encompass remarkable, representative and/or sensitive marine habitats, communities and ecological processes.**
- **SESAs are focal areas for facilitating research to better understand natural and human-induced variation**



II. Why SESAs?

- 1) Understand the area under MBNMS jurisdiction
- 2) Evaluate high value habitat within a large region
- 3) Use adaptive management approach
- 4) Engage on resource policy processes
- 5) Enhance research & monitoring efforts





III. Where are SESAs?

IV. How we identified SESAs

- **Defined SESAs and objectives**
- Compiled best available information on resources in MBNMS
- Selected primary & secondary criteria; modified based on input
- Gathered local knowledge from stakeholders, scientists and partners on MBNMS resources
- Identified & mapped draft locations & circulated to stakeholders for input
- Launched public GIS on-line map



Selection of SESA Criteria

- Remarkable resources
- Representative habitats, communities and processes in MBNMS
- Sensitive resources
- Locations that are feasible for future scientific studies
- Locations that facilitate long-term monitoring



Primary Criteria

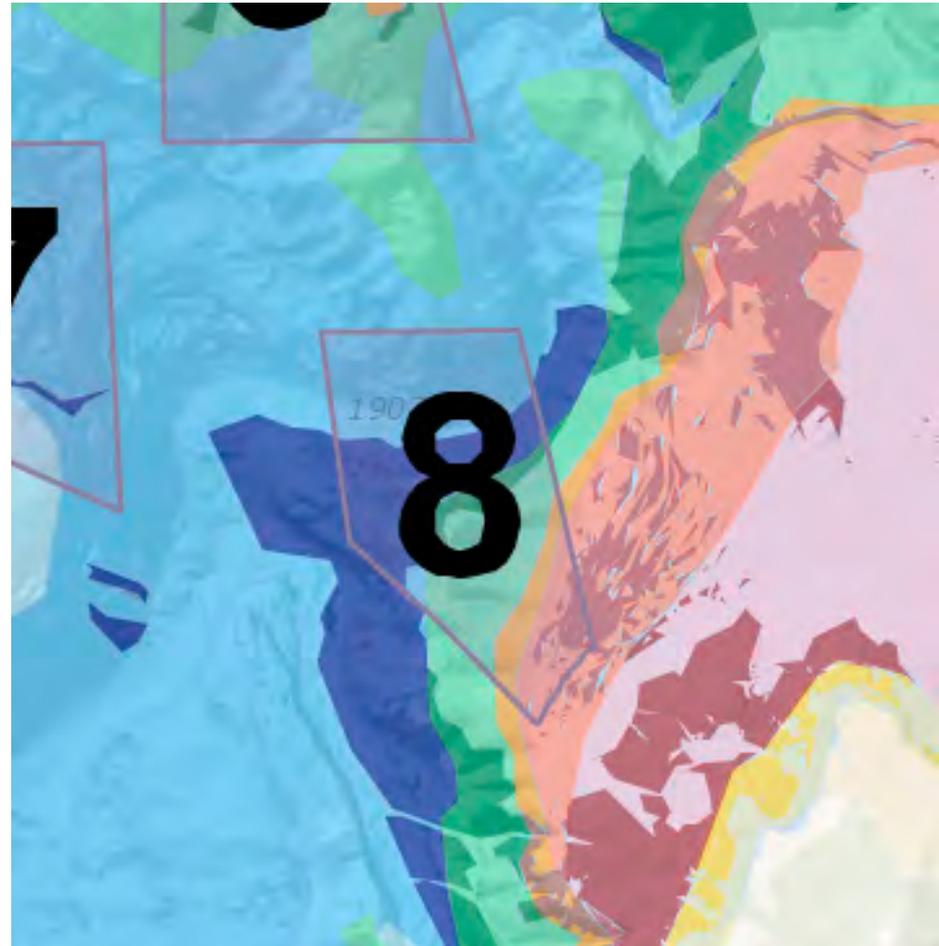
Focus on benthic resources or scientific research



- Benthic habitat heterogeneity
- Structure-forming invertebrates
- Benthic biodiversity
- Past research and monitoring

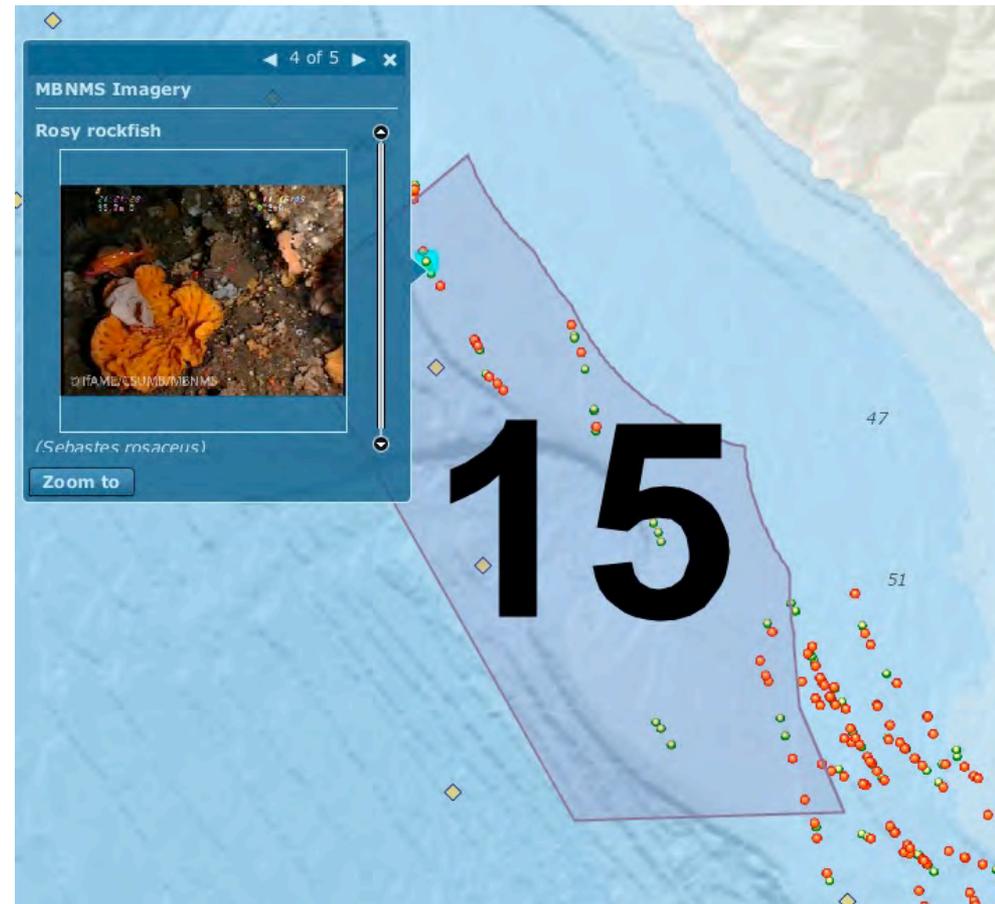
Primary Criteria

- **Benthic habitat heterogeneity**
 - Hard bottom
 - Large geologic features
 - (e.g. canyons, seamounts, ridges)
 - Primary benthic habitat types
 - (e.g. depth and substrate type)
 - Habitat richness and diversity
 - Steepness
- Structure-forming invertebrates
- Benthic biodiversity
- Research and monitoring



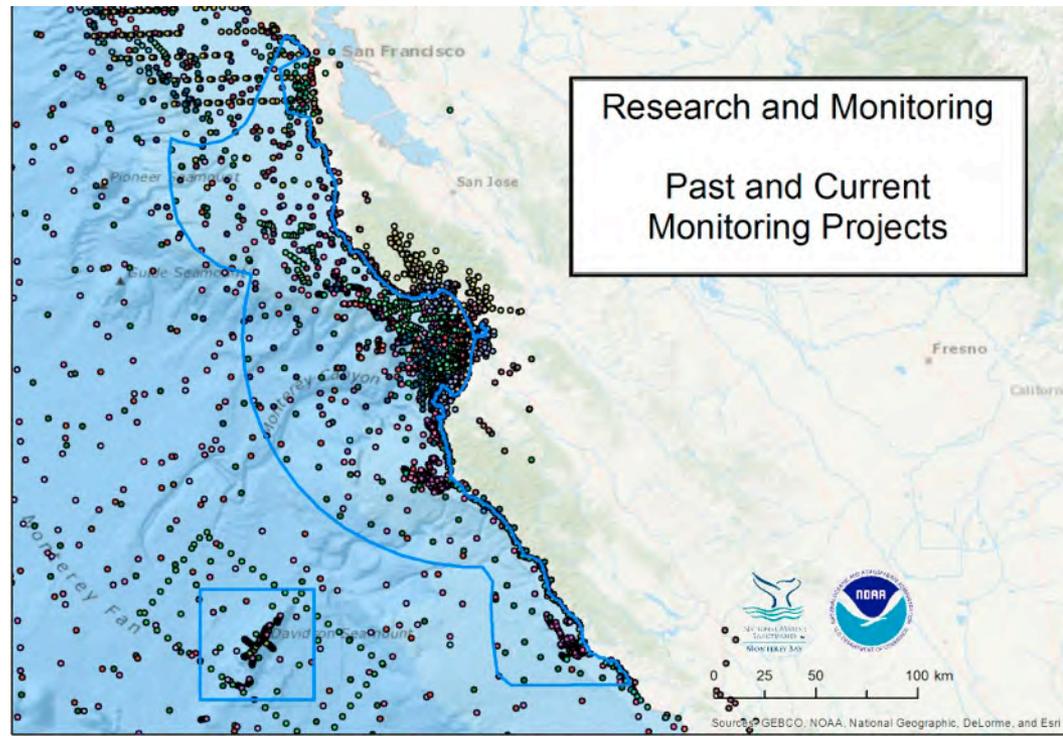
Primary Criteria

- Benthic habitat heterogeneity
- Structure-forming invertebrates
 - Corals and sponges
 - Chemosynthetic Biological Communities (aka cold seeps)
 - Other (e.g., crinoids, brachiopod beds)
- Benthic biodiversity
- Research and monitoring



Primary Criteria

- Benthic habitat heterogeneity
- Structure-forming invertebrates
- Benthic biodiversity
- **Research and Monitoring**
 - Imagery Available
 - Fixed Monitoring Station
 - Past Research
 - SIMoN Monitoring Projects



Secondary Criteria

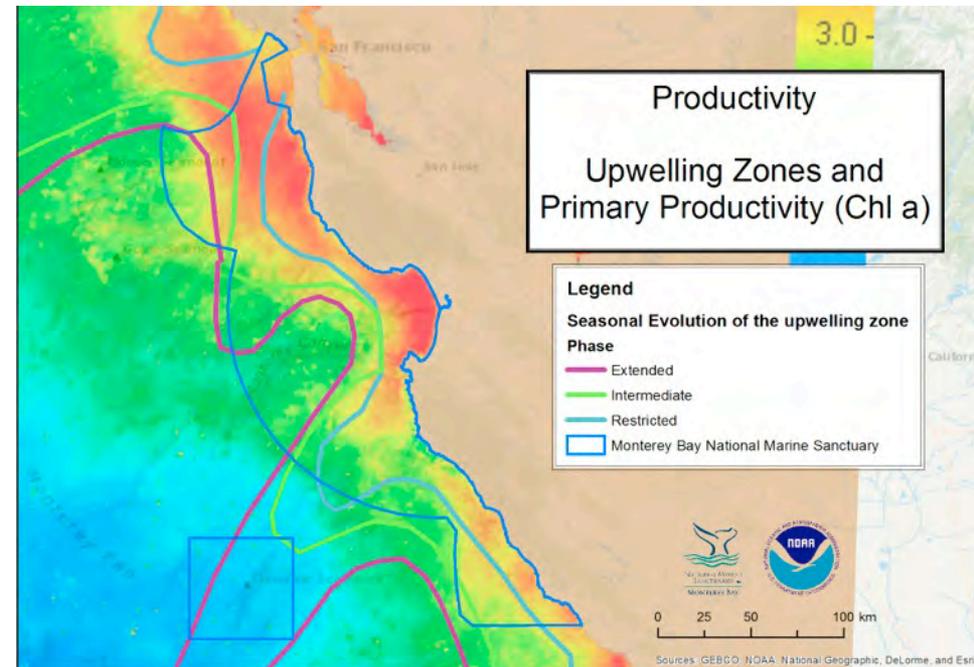
Refine selection of SESAs:

- Primary Productivity and Hotspots
- Relevant Spatial Management
- Past Benthic Impacts



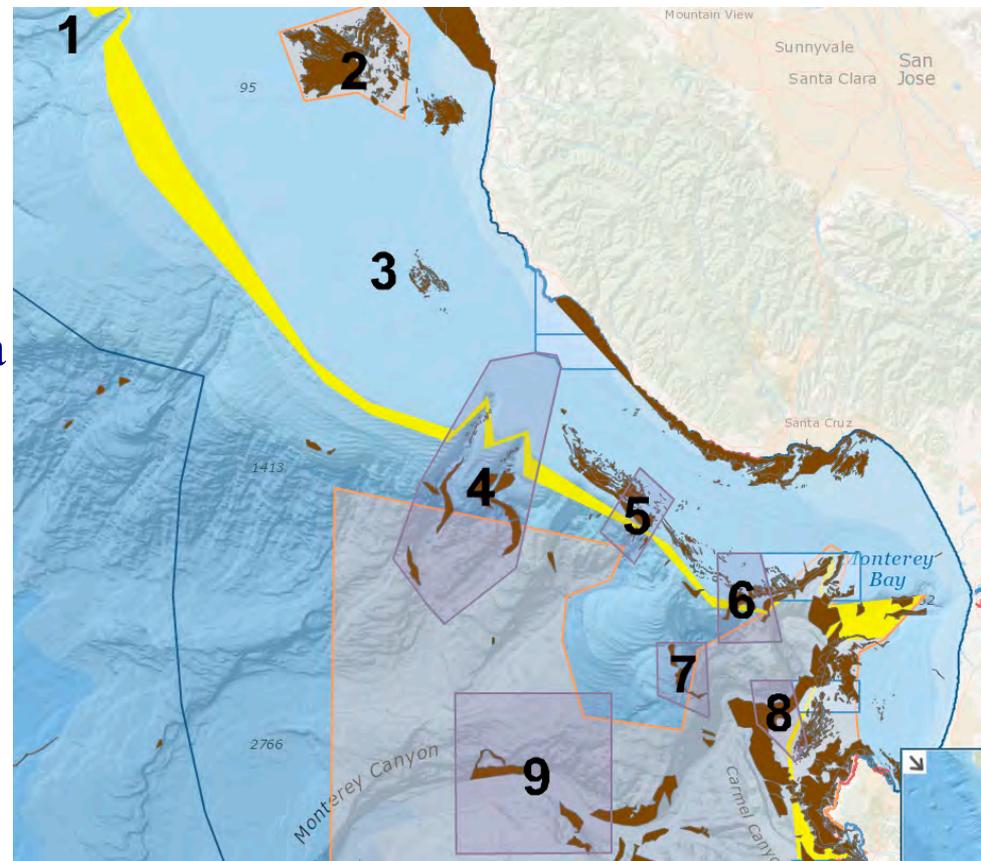
Secondary Criteria

- Primary Productivity and Hotspots
 - Upwelling Zones
 - Primary Productivity
 - Bird, Mammals, Turtle Hot spots/Important Foraging Areas
 - Krill hotspots
- Relevant Spatial Management
- Past benthic impacts



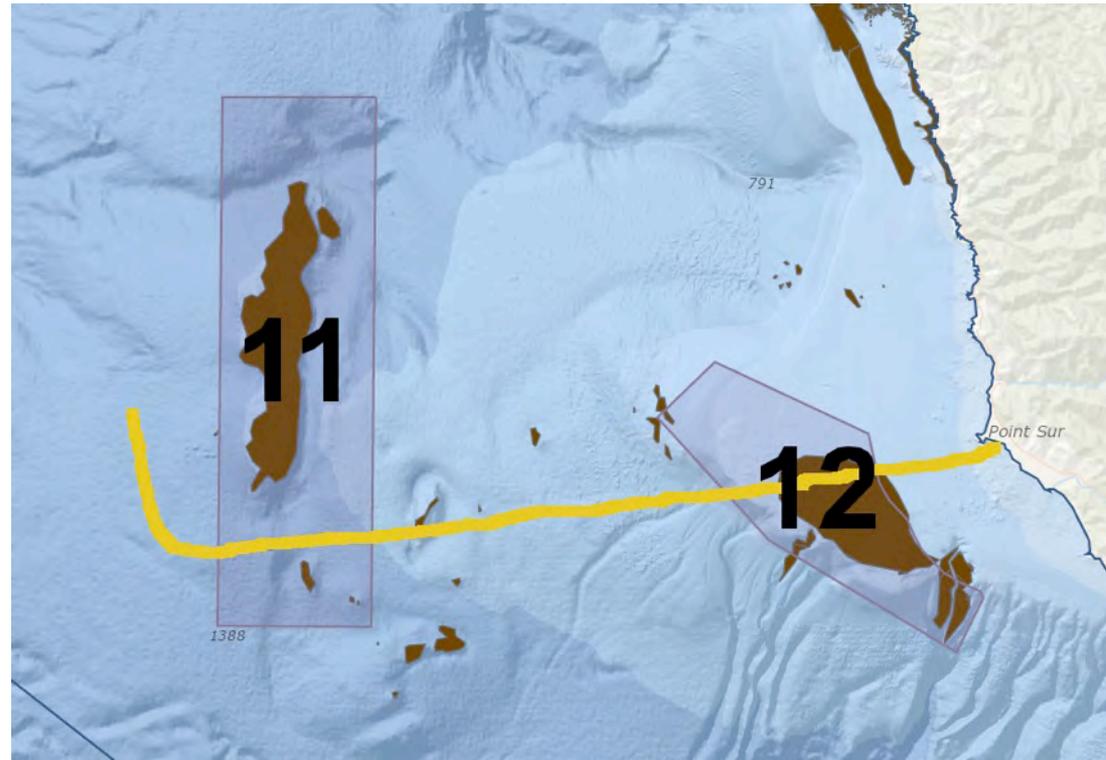
Secondary Criteria

- Pelagic Biodiversity & Productivity
- Relevant Spatial Management
 - State MLPA MPAs
 - Trawl Rockfish Conservation Area
 - EFH Conservation Areas
 - 700 fathom polygon
 - Northern Management Area
- Past benthic impacts



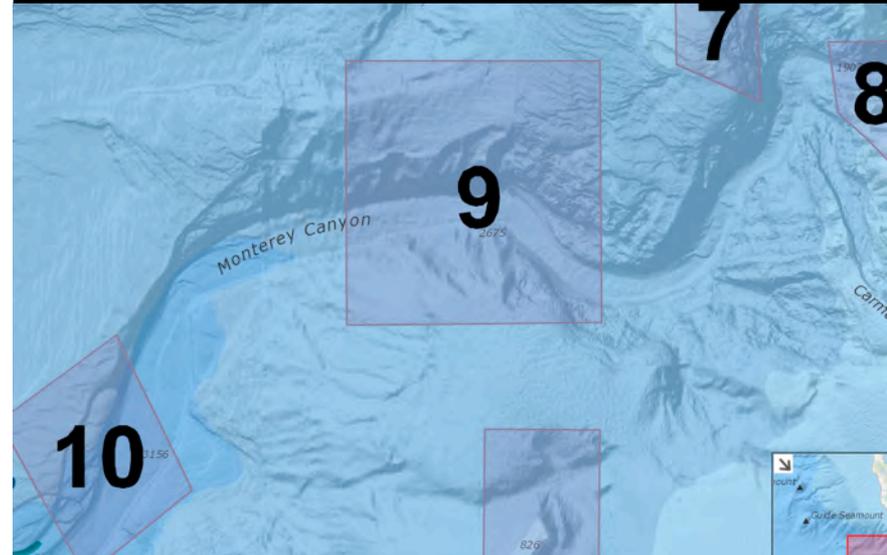
Secondary Criteria

- Pelagic Biodiversity & Productivity
- Relevant Spatial Management
- Past Benthic Impacts
 - Submerged cables
 - Marine debris
 - Lost containers
 - Lost fishing gear



IV. How we identified SESAs

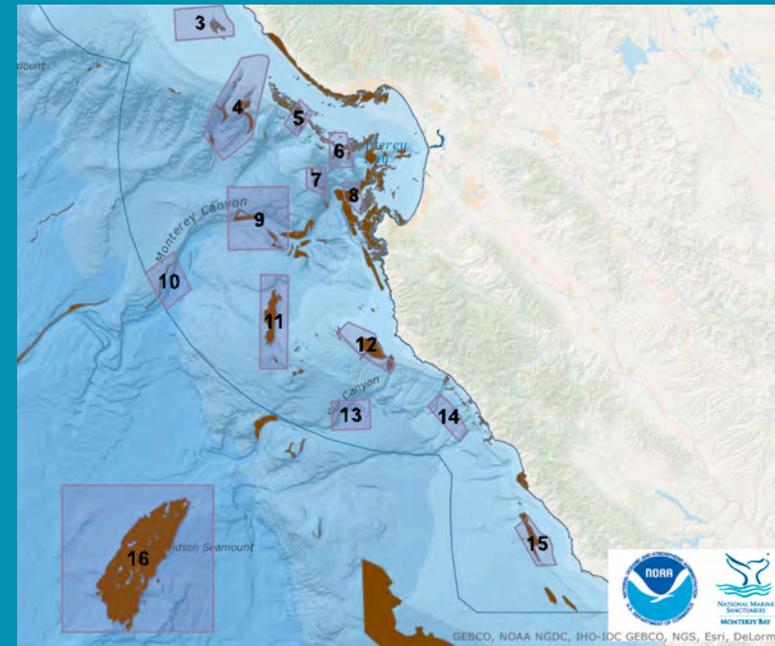
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V. Next Steps



- Launch online SESA map tool – today!
- Finalize SESAs by mid May
- Products include:
 - Fact sheet
 - MBNMS & SIMoN webpages
 - Completed data matrix
 - Technical report
- Plan Research Workshop for fall



I. How will Sanctuary Ecologically Significant Areas be used?

SESAs are identified for a variety of current and future purposes:

MBNMS SESAs

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graph TD; A[MBNMS SESAs] --> B[Research & Monitoring]; A --> C[Policy & Management];
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Research & Monitoring

- Resource characterization
- Long-term monitoring (e.g., sentinel sites, ocean acidification, understanding human impacts and natural change)
- Monitoring indicators of ecosystem health (IEA)

Policy & Management

- EFH Groundfish 5 Yr review (timing provides first opportunity to use SESAs)
- Vessel traffic, submerged cables, offshore energy, offshore aquaculture

Pacific Coast Groundfish Five Yr Essential Fish Habitat Review

Aug 2012
- Mar 2013

Meetings with Groundfish Trawl Fleet to gather local knowledge on important trawling areas & discuss potential EFH boundary modifications

Mar 2013

Meetings with NGOs & CWG to discuss MBNMS SESAs and plan for collaborative EFH proposal

April 2013

NMFS Synthesis Report released & PFMC issues RFP for proposals for EFH boundary modifications

May 2013

Host meetings with trawl fleet & NGOs to discuss draft objectives & potential EFH boundary modifications

June 2013

Collaborative draft EFH proposal is drafted & reviewed by fishermen, NGOs, & interested stakeholders

July 2013

EFH proposals due to Pacific Fisheries Management Council

Nov 2013

PFMC decides if moving forward with EFH boundary modifications

Outcomes

- 1) Submit collaborative proposal
- 2) Inform PFMC process

DRAFT SESAs



VI. Launch Public GIS Online Map!

